

REMARKS

This Application has been reviewed in light of the Office Action mailed January 18, 2011. At the time of the Office Action, Claims 1-10, 19, 22-30, 32 and 34-44 were pending, and Claims 11-18, 20-21, 31 and 33 were previously cancelled. All pending Claims 1-9, 19, 22-30, 32 and 32-44 were rejected in the Office Action and Claim 10 was objected to.

Claims 1, 3-7, 22-23, 25-26, 32, 39, 41, and 44 are herein amended; Claims 2, 24, 36, and 42 are cancelled without prejudice or disclaimer; and new independent Claim 45 and 46 are added. Applicants respectfully request reconsideration and allowance of all pending claims in view of the amendments set forth above and the following remarks.

Allowable Subject Matter -- New Claims 45 and 46.

The Examiner indicated that dependent Claim 10 is allowable. Thus, Applicants have added new independent Claims 45 and 46, which incorporate the limitation of Claim 10 into independent Claims 1 and 39, respectively. Accordingly, Applicants submit that new Claims 45 and 46 are in condition for allowance.

Amended Independent Claims 1, 22, 32, and 39 are Allowable.

Independent Claims 1, 22, 32, and 39 were rejected under 35 U.S.C. §103(a) as being unpatentable over *AAPA* (Applicants' Admitted Prior Art) in view of *Siegmann* (U.S. Patent 4,493,156).

Although Applicants do not agree with these rejections, Applicants have amended Claims 1, 22, 32, and 39 to further distinguish from the cited references. For example, amended Claim 1 recites:

1. A method for detaching a frozen charge from the inner wall of a grinding pipe mounted rotatably about a horizontal axis of rotation, the frozen charge being formed during a standstill of the grinding pipe and having a center of gravity positioned in a starting position below the horizontal axis of rotation, the method comprising the steps of:

from a starting position in which the center of gravity of the frozen charge is positioned in the starting position below the horizontal axis of rotation, controlling a drive device of the grinding pipe to control the angle of rotation and the speed of rotation of the grinding pipe; and

varying the speed of rotation of the grinding pipe by the drive device such that the varied rotational speed creates detaching forces caused by inertia to act on the frozen charge, the detaching forces created by the varied rotational speed causing the frozen charge to detach from the inner wall of the grinding pipe, wherein a maximum value of the angle of rotation about the starting position is selected smaller than 180°.

The amended limitations are supported in the original disclosure, e.g., at page 7 and Figure 2.

Siegmann does not teach these limitations. *Siegmann* fails to teach a *special starting position* for the rotation of the drum, or controlling the angle of rotation about a special starting position. Further, *Siegmann* fails to teach a rotation starting position that is *defined by the position of the center of gravity of the frozen charge (i.e., below the horizontal axis of rotation of the drum)*, which frozen charge builds up during a standstill of the grinding pipe. Instead, *Siegmann* teaches the formation of a dry filter cake during rotation of a vertical drum, wherein the filter cake of *Siegmann* is located uniformly about the inner surface of the vertical drum. The limitations regarding the center of gravity of the frozen charge being positioned in a starting position below the horizontal axis of rotation are completely irrelevant to system that uses a vertical drum, as in *Siegmann*.

Applicants' invention addresses an important issue of preventing damage to the grinding pipe during the detachment of the frozen charge from the inner wall of the grinding pipe. Thus, the definition of the starting position for a rotational movement of the pipe to detach the frozen charge is important to prevent the frozen charge from being rotated upwards to a height from which it falls down uncontrolled and damages the inner surface of the grinding pipe. These concerns are irrelevant to *Siegmann*. The starting position and degree of rotation of the vertical drum in *Siegmann* are irrelevant to any potential damage caused to the drum. Thus, *Siegmann* would not be expected to lead one to the limitations recited in amended Claim 1.

AAPA also fails to teach the limitations of amended Claim 1, and the Examiner has not alleged that *AAPA* does teach anything similar.

Thus, for at least these reasons, Applicants respectfully submit that amended Claim 1 is clearly distinguished from *AAPA* and *Siegmann*. Accordingly, Applicants request reconsideration and allowance of amended Claim 1, as well as all claims that depend therefrom. Also, for similar reasons, Applicants request reconsideration and allowance of independent Claims 22, 32, and 39, as well as all claims that depend therefrom.

Further, independent method Claim 39 was rejected by the Examiner under 35 U.S.C. §102(b) as being anticipated by each of (a) *Earle* (U.S. Patent 2,232,696), and (b) *Siegmann*. According to the Examiner, both *Earle* and *Siegmann* teach devices for oscillating a grinding pipe/drum, and that the particular use of the drum in Claim 39 is not further limiting to the claim. (Office Action, page 2).

Although Applicants do not agree with the rejections, Applicants have amended Claim 39 to positively recite further structural elements, as shown below.

39. A system for detaching a frozen charge from the inner wall of a grinding pipe, comprising:

a grinding pipe mounted rotatably about a horizontal axis of rotation;

a frozen charge formed on an inner wall of the grinding pipe during a standstill of the grinding pipe, the frozen charge having a center of gravity positioned in a starting position below the horizontal axis of rotation;

means programmed to control a drive device of the grinding pipe to control the angle of rotation and the speed of rotation of the grinding pipe having the frozen charge formed therein; and

means programmed to vary the speed of rotation of the grinding pipe by the drive device such that the varied rotational speed detaches the frozen charge from the inner wall of the grinding pipe, wherein the means for varying the speed of rotation of the grinding pipe is programmed to provide a maximum value of the angle of rotation about the starting position smaller than 180°.

For example, amended Claim 39 recites “means programmed to control a drive device of the grinding pipe...” and “means programmed to vary the speed of rotation of the grinding pipe ...” Further, amended Claim 39 recites “a frozen charge formed on an inner wall of the grinding pipe during a standstill of the grinding pipe, the frozen charge having a center of gravity positioned in a starting position below the horizontal axis of

rotation.” Still further, amended Claim 39 recites “wherein the means for varying the speed of rotation of the grinding pipe is **programmed to provide a maximum value of the angle of rotation about the starting position smaller than 180°.**”

Applicants submit that neither *Earle* nor *Siegmann* teaches these limitations of amended Claim 39. Thus, Accordingly, Applicants request reconsideration and allowance of amended Claim 39, as well as all claims that depend therefrom.

All Dependent Claims are Allowable.

Dependent Claims 2-9, 19, 23-30, 34-39, and 40-44 were rejected under 35 U.S.C. §103(a) as being unpatentable over *AAPA* in view of *Siegmann*.

Dependent Claims 40-44 were rejected by the Examiner under 35 U.S.C. §102(b) as being anticipated by *Earle*.

Dependent Claims 40-41 and 43 were rejected by the Examiner under 35 U.S.C. §102(b) as being anticipated by *Siegmann*.

Applicants submit that all dependent claims are allowable at least because they depend from the independent claims shown above to be allowable. Applicants respectfully request reconsideration and allowance of all pending dependent claims.

CONCLUSION

Applicants have made an earnest effort to place this case in condition for allowance in light of the remarks set forth above. Applicants respectfully request reconsideration of the pending claims.

Applicants authorize the Commissioner to charge \$544 for new independent claims 45 and 46 to Deposit Account No. 50-4871 of King & Spalding L.L.P. Applicants believe there are no other fees due at this time. However, the Commissioner is hereby authorized to charge any fees necessary or credit any overpayment to Deposit Account No. 50-4871 of King & Spalding L.L.P.

If there are any matters concerning this Application that may be cleared up in a telephone conversation, please contact Applicants' attorney at 512-457-2030.

Respectfully submitted,
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